

Standby & Prime: 380/220V, 400/230V, 415/240V, 50Hz and 220/127V, 60 Hz



Engine Model	Cat® C1.5 In-line 3, 4-cycle diesel
Bore x Stroke	84 mm x 90 mm (3.3 in x 3.5 in)
Displacement	1.5 L (91.3 in <sup>3</sup> )
Compression Ratio	22.5:1
Aspiration	Naturally Aspirated
Fuel Injection System	Inline
Governor	Mechanical

Model	Standby		Prime		Performance Strategy
	50 Hz	60 Hz	50 Hz	60 Hz	
DE13.5E3	13.5 kVA	16.5 kVA	12.5 kVA	15.0 kVA	EU IIIA

## PACKAGE PERFORMANCE

Performance	Standby		Prime	
	50 Hz	60 Hz	50 Hz	60 Hz
Frequency	50 Hz	60 Hz	50 Hz	60 Hz
Genset Power Rating	13.5 kVA	16.5 kVA	12.5 kVA	15.0 kVA
Gen set power rating with fan @ 0.8 power factor	10.8 ekW	13.2 ekW	10.0 ekW	12.0 ekW
Fuelling strategy	EU IIIA	EU IIIA	EU IIIA	EU IIIA
<b>Fuel Consumption</b>				
110% Load with Fan	NA	NA	4.0 L/hr, 1.1 gal/hr	4.9 L/hr, 1.3 gal/hr
100% Load with Fan	4.0 L/hr, 1.1 gal/hr	4.9 L/hr, 1.3 gal/hr	3.7 L/hr, 1.0 gal/hr	4.3 L/hr, 1.1 gal/hr
75% Load with Fan	3.0 L/hr, 0.8 gal/hr	3.5 L/hr, 0.9 gal/hr	2.8 L/hr, 0.7 gal/hr	3.2 L/hr, 0.8 gal/hr
50% Load with Fan	2.1 L/hr, 0.6 gal/hr	2.5 L/hr, 0.7 gal/hr	2.0 L/hr, 0.5 gal/hr	2.4 L/hr, 0.6 gal/hr
<b>Cooling System<sup>1</sup></b>				
Radiator air flow restriction (system)	125 Pa, 0.5 in. Water	125 Pa, 0.5 in. Water	125 Pa, 0.5 in. Water	125 Pa, 0.5 in. Water
Radiator air flow	28.8 m <sup>3</sup> /min, 1017 cfm	37.2 m <sup>3</sup> /min, 1314 cfm	28.8 m <sup>3</sup> /min, 1017 cfm	37.2 m <sup>3</sup> /min, 1314 cfm
Total coolant capacity	6.0 L, 1.6 gal	6.0 L, 1.6 gal	6.0 L, 1.6 gal	6.0 L, 1.6 gal
<b>Inlet Air</b>				
Combustion air inlet flow rate	1.1 m <sup>3</sup> /min, 38 cfm	1.2 m <sup>3</sup> /min, 43 cfm	1.1 m <sup>3</sup> /min, 38 cfm	1.2 m <sup>3</sup> /min, 43 cfm
Max. Allowable Combustion Air Inlet Temp	50° C	50° C	50° C	50° C
<b>Exhaust System</b>				
Exhaust stack gas temperature	490° C, 914° F	505° C, 941° F	445° C, 833° F	455° C, 851° F
Exhaust gas flow rate	2.9 m <sup>3</sup> /min, 102 cfm	3.4 m <sup>3</sup> /min, 119 cfm	2.7 m <sup>3</sup> /min, 95 cfm	3.1 m <sup>3</sup> /min, 111 cfm
Exhaust system backpressure (maximum allowable)	10.2 kPa, 3 in. Hg	10.2 kPa, 3 in. Hg	10.2 kPa, 3 in. Hg	10.2 kPa, 3 in. Hg
<b>Heat Rejection</b>				
Heat Rejection to Jacket Water	12.9 kW, 734 Btu/min	15.2 kW, 864 Btu/min	11.6 kW, 660 Btu/min	13.6 kW, 773 Btu/min
Heat Rejection to Atmosphere from Engine & alternator	6.0 kW, 341 Btu/min	7.1 kW, 404 Btu/min	5.4 kW, 307 Btu/min	6.3 kW, 358 Btu/min

Alternator <sup>2</sup>	50 Hz			60 Hz
	Voltages	415/240V	400/230V	380/220V
Motor Starting Capability @ 30% Voltage Dip	28 kVA	27 kVA	25 kVA	27 kVA
Current	18.8 amps	19.5 amps	20.5 amps	28.9 amps
Frame Size	LC1114D			
Excitation	SE			
Temperature Rise	105 ° C			

## DEFINITIONS AND CONDITIONS

<sup>1</sup> For ambient and altitude capabilities consult your Cat dealer. Air flow restriction (system) is added to existing restriction from factory.

<sup>2</sup> UL 2200 Listed packages may have oversized generators with a different temperature rise and motor starting characteristics. Generator temperature rise is based on a 40° C ambient per NEMA MG1-32.

## APPLICABLE CODES AND STANDARDS:

AS1359, CSA C22.2 No100-04, UL142, UL489, UL869, UL2200, NFPA37, NFPA70, NFPA99, NFPA110, IBC, IEC60034-1, ISO3046, ISO8528, NEMA MG1-22, NEMA MG1-33, 2006/95/EC, 2006/42/EC, 2004/108/EC.

**Note:** Codes may not be available in all model configurations. Please consult your local Cat Dealer representative for availability.

**STANDBY:** Output available with varying load for the duration of the interruption of the normal source power. Average power output is 70% of the standby power rating. Typical operation is 200 hours per year, with maximum expected usage of 500 hours per year.

**PRIME:** Output available with varying load for an unlimited time. Average power output is 70% of the prime power rating. Typical peak demand is 100% of prime rated kW with 10% overload capability for emergency use for a maximum of 1 hour in 12. Overload operation cannot exceed 25 hours per year.

**Ratings** are based on SAE J1349 standard conditions. These ratings also apply at ISO3046 standard conditions.

Fuel Rates are based on fuel oil of 35° API [16° C (60° F)] gravity having an LHV of 42 780 kJ/kg (18,390 Btu/lb) when used at 29° C (85° F) and weighing 838.9 g/litre (7.001 lbs/U.S. gal.). Additional ratings may be available for specific customer requirements, contact your Caterpillar representative for details. For information regarding Low Sulfur fuel and Biodiesel capability, please consult your Cat dealer.

Media Number: LEHE1671

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